

## **Monthly Wholesale Trade**

Sales and Inventories

U.S. Department of Commerce Economics and Statistics Administration BUREAU OF THE CENSUS **June 1997** BW/97-6 Issued August 1997

**Sales.** June 1997 sales of merchant wholesalers, after adjustment for seasonal variation and trading-day differences but not for price changes, were \$210.7 billion, up 0.3 percent (+/-0.8%) from the revised May level and were 5.4 percent (+/-1.6%) above June 1996. The May preliminary estimate was revised downward by \$0.3 billion or 0.2 percent. June sales of durable goods were up 1.1 percent (+/-1.1%) from May and were 5.9 percent (+/-3.1%) above June 1996. Compared to last month, sales of professional and commercial equipment and supplies were up 3.3 percent and motor vehicles and automotive equipment increased 2.9 percent. Among nondurable goods, sales of apparel, piece goods and notions declined 4.7 percent from May while petroleum and petroleum products rose 4.3 percent.

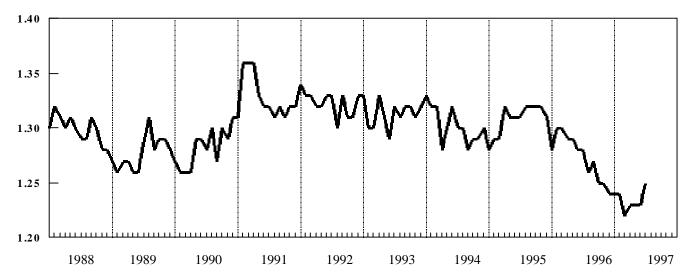
**Inventories.** Total inventories of merchant wholesalers, after adjustment for seasonal variation but not for price changes, were \$263.9 billion at the end of June, up 1.9 percent (+/-0.5%) from the revised May level and were 3.0 percent (+/-2.4%) above June 1996. The May preliminary estimate

was revised upward by \$0.3 billion or 0.1 percent. End-of-month inventories of durable goods wholesalers increased 2.5 percent (+/-0.5%) from last month and were 5.5 percent (+/-3.8%) above June 1996. Compared to last month, inventories of motor vehicles and automotive equipment increased 5.1 percent and professional and commercial equipment and supplies grew 3.1 percent. Among nondurable goods, inventories of beer, wine, and distilled alcoholic beverages increased 6.5 percent from May while petroleum and petroleum products fell 3.3 percent.

**Inventories/Sales Ratio.** The June inventories/sales ratio for merchant wholesalers, based on seasonally adjusted data, was 1.25. The June 1996 ratio was 1.28.

Data in this report are based on a sample and, therefore, are subject to sampling and nonsampling variability. A discussion of the reliability of the data and general survey methodology appears in BW/96-RV Current Business Report.

## Monthly Inventories/Sales Ratios of Merchant Wholesalers: 1988 to 1997 (Data adjusted for seasonal, and trading-day differences, but not for price changes)



Monthly Wholesale Trade for July is scheduled to be released September 9, 1997 at 10:00 a.m.

Address inquiries concerning this report to Services Division, Bureau of the Census, Washington, DC 20233, or call Ronald Piencykoski, (301) 457-2779 or 457-2764. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

This report is available on day of issue through the Department of Commerce's online Economic Bulletin Board (202-482-1986). The data are also available on the internet - http://www.census.gov/svsd/www/mwts.html.

Table 1. Estimated Monthly Sales, Inventories, and Inventories/Sales Ratios of Merchant Wholesalers: 1997 and 1996

[In millions of dollars]

[in milli	ons of dollars]			Sales				Inventories							Inventories/Sales		
												4					
0104		Monthly			Percent change			Monthly			Percent change			ratios			
SIC1	Kind of	Jun.	May	Jun.	Jun./	May/	Jun. 97	Jun.	May	Jun.	Jun./	May/	Jun. 97	Jun.	May	1	
code	business	1997 (p)	1997 (r)	1996 (r)	May	Apr.	Jun. 96	1997 (p)	1997 (r)	1996 (r)	May	Apr.	Jun. 96	1997 (p)	1997 (r)	7 1996 (r)	
Adius	to d2	(Ρ)	(1)	(1)				(Þ)	(1)	(1)				(P)	(1)	(1)	
Adjus	1																
	U.S. Total	210,690	210,008	199,977	0.3	0.0	5.4	263,931	259,029	256,122	1.9	0.4	3.0	1.25	1.23		
50	Durable	109,273	108,049	103,174	1.1	-0.6	5.9	169,730	165,548	160,820	2.5	0.7	5.5	1.55	1.53	1.56	
501	Automotive	18,725	18,189	17,341	2.9	1.4	8.0	28,246	26,871	27,412	5.1	1.7	3.0	1.51	1.48	1.58	
502	Furniture	3,513	3,457	3,709	1.6	-2.8	-5.3	5,210	5,241	5,234	-0.6	0.6	-0.5	1.48	1.52	1	
503	Lumber	7,467	7,319	7,210	2.0	-3.1	3.6	8,224	8,096	7,684	1.6	1.2	7.0	1.10	1.11	1	
504	Prof. equip.	21,721	21,032	19,337	3.3	-0.3	12.3	23,538	22,838	22,252	3.1	0.6	5.8	1.08	1.09	1	
505	Metals	8,725	8,539	8,015	2.2	-2.2	8.9	13,706	13,618	12,111	0.6	0.6	13.2	1.57	1.59	1 .	
506 507	Electrical	14,959	14,922	14,475	0.2	1.1	3.3 9.0	24,261	23,732	23,337	2.2	0.5	4.0 9.1	1.62	1.59	1	
508	Hardware	6,388	6,384	5,860	0.1	-0.9		12,534	12,384	11,484	1.2	-0.1		1.96 2.39	1.94	1	
509	Machinery Otner Durable	16,091 11,684	15,956 12,251	15,236 11,991	0.8 -4.6	-0.5 -3.1	5.6 -2.6	38,512 15,499	37,604 15,164	35,489 15,817	2.4 2.2	1.8 -2.8	8.5 -2.0	1.33	2.36 1.24	1	
					_		_						1				
51	Nondurable	101,417	101,959	96,803	-0.5	0.8	4.8	94,201	93,481	95,302	0.8	-0.1	-1.2	0.93	0.92	0.98	
511	Paper	7,130	7,098	6,735	0.5	-5.2	5.9	8,858	8,921	8,480	-0.7	1.9	4.5	1.24	1.26	1	
512	Drugs	9,865	9,903	8,420	-0.4	3.0	17.2	14,437	14,074	12,516	2.6	2.0	15.3	1.46	1.42	1	
513	Apparei	6,957	7,300	6,382	-4.7	-3.0	9.0	12,367	12,421	11,897	-0.4	1.0	4.0	1.78	1.70	1	
514	Groceries	27,861	27,657	25,595	0.7	1.0	8.9	17,444	17,485	17,691	-0.2	1.0	-1.4	0.63	0.63	1	
515 516	rarm-products onemicals	9,393	9,701	10,991	-3.2	-0.1	-14.5	9,308	9,013	12,547	3.3	-3.5	-25.8	0.99	0.93	1	
517	Petroleum	4,653	4,567	4,458	1.9	-0.1	4.4	4,824	4,605	4,429	4.8	-1.4	8.9	1.04	1.01	1	
517 518	Alconoi	15,432	14,794 4,789	14,077 4,711	4.3 -2.9	2.3 3.6	9.6 -1.3	5,041 5,008	5,214 4,701	4,870 5,043	-3.3 6.5	0.7 -3.7	3.5 -0.7	0.33 1.08	0.35	1	
519	Other Nondur.	4,652 15,474	16,150	15,434	-2.9 -4.2	2.3	0.3	16,914	17,047	17,829	-0.8	-3.7 -1.8	-0.7 -5.1	1.08	1.06	1	
	djusted	10,474	10,100	10,404	7.2	2.0	0.0	10,514	17,047	17,020	0.0	1.0	0.1			date	
NOT A	l													1997	-5 10	1996	
	U.S. Total	212.465	212,934	196,669	-0.2	0.9	8.0	260.836	257,904	252,303	1.1	-0.9	3.4	1,242,	440	1,178,736	
50	Durable	111,190	· '	196,669		-0.3		,	· ·								
501	Automotive		108,251		2.7		8.4	169,684	166,649	160,718	1.8	0.5	5.6	634,		606,150	
501	Furniture	19,025	18,898	17,393	0.7	0.4	9.4	27,935	27,301	27,028	2.3	1.3	3.4	109,		105,674	
502	Lumper	3,495	3,492	3,609	0.1 2.9	-2.5 -0.3	-3.2 5.9	5,309	5,278	5,328	0.6 1.6	3.2 0.7	-0.4 7.1		822 143	20,844	
503	Prof. equip.	7,952 22,003	7,729 20,212	7,506 19,144	8.9	0.2	14.9	8,397 23,208	8,266 22,541	7,838 21,940	3.0	-1.3	5.8	43, 122,	- 1	40,504 109,904	
505	Metals	8,917	8,804	8,031	1.3	-4.3	11.0	13,747	13,618	12,172	0.9	-0.1	12.9	52,		49,707	
506	Electrical	14,944	14,459	14,157	3.4	1.8	5.6	24,576	23,708	23.640	3.7	1.0	4.0	85.		85.111	
507	Hardware	6,790	6,358	6,094	6.8	-0.2	11.4	12,509	12,619	11,450	-0.9	0.8	9.2	,	169	33,198	
508	Machinery	16,509	16,514	15,053	0.0	-1.0	9.7	38,473	38,093	35,489	1.0	1.4	8.4	95,		94,381	
509	Otner Durable	11,555	11,785	11,559	-2.0	-0.5	0.0	15,530	15,225	15,833	2.0	-1.5	-1.9	69,		66,827	
51	Nondurable	101,275	104,683	94,123	-3.3	2.2	7.6	91,152	91,255	91,585	-0.1	-3.4	-0.5	607,	789	572,586	
511	⊬aper	6,980	6,878	6,452	1.5	-7.4	8.2	8,716	8,823	8,344	-1.2	-0.9	4.5	43,	229	40,215	
512	Drugs	9,539	9,576	7,755	-0.4	-2.3	23.0	13,975	13,328	12,103	4.9	-3.4	15.5	56,	722	49,382	
513	Apparei	6,797	6,161	6,184	10.3	-13.4	9.9	12,553	12,061	12,087	4.1	1.8	3.9	42,	061	34,749	
514	Groceries	27,638	28,763	25,083	-3.9	6.6	10.2	17,287	17,223	17,532	0.4	1.0	-1.4	162,	900	154,348	
515	Farm-products	8,670	9,730	9,771	-10.9	0.1	-11.3	7,381	7,895	9,937	-6.5	-17.3	-25.7		465	64,554	
516	Chemicals	4,890	4,855	4,538	0.7	1.2	7.8	4,896	4,642	4,495	5.5	-2.0	8.9	27,		26,741	
517	Petroleum	15,123	15,164	13,289	-0.3	4.2	13.8	4,875	5,245	4,719	-7.1	3.8	3.3		132	84,473	
518	Alconol	4,973	5,177	4,876	-3.9	12.3	2.0	4,978	4,616	5,003	7.8	-5.9	-0.5	26,		26,972	
519	Otner Nonaur.	16,665	18,379	16,175	-9.3	5.7	3.0	16,491	17,422	17,365	-5.3	-6.4	-5.0	96,	644	91,152	

p Preliminary estimate. r Revised.

<sup>1</sup> For a full description of the SIC Codes shown above see the "1987 Standard Industrial Classification Manual" or the Current Business Reports

<sup>&</sup>quot;Combined Annual and Revised Monthly Wholesale Trade" publication.

<sup>2</sup> Data adjusted for seasonal variations and, in the case of sales, also for trading-day differences. See Table 3 for seasonal adjustment factors used.

Table 2. Coefficients of Variation and Standard Error for Sales and Inventories

	Kind of business	Coeffici		ariation for : 100)	Sta	ndard er	ror for tr	Coefficients of variation for level (x 100)		Standard error for trend		
SIC code		Preliminary estimates		Final estimates		Ratio of two consecutive months		Year to Year Estimates		Cumulative sales estimates		Current year cumulative to previous
		Sales	Inv	Sales	Inv	Sales	Inv	Sales	Inv			year
		Median	Median	Median	Median	Median	Median	Median	Median	СҮ	PΥ	cumulative
	U.S. Total	1.1	1.4	1.0	1.4	0.5	0.3	1.0	1.6	1.1	0.8	0.8
50	Durable	2.1	2.2	2.0	2.3	0.7	0.3	1.8	2.3	2.0	1.1	1.5
501	A utomotive	4.1	4.0	3.8	3.9	1.3	1.0	3.9	3.9	3.5	2.8	2.9
502	Furniture	5.6	7.0	5.4	7.0	2.5	1.0	4.1	10.9	5.1	4.1	3.7
503	Lumber	5.1	5.2	5.2	5.2	1.5	1.0	5.4	5.5	5.1	2.1	5.3
504	Prof. equip.	5.6	7.0	5.7	7.2	1.5	0.9	5.3	5.1	5.5	3.2	4.5
505	Metals	4.5	9.1	4.7	8.5	1.3	0.8	3.0	10.2	4.6	3.7	2.2
506	Electrical	4.7	4.3	4.4	4.2	1.3	0.5	3.2	3.0	4.4	2.9	3.1
507	Hardw are	4.9	4.2	4.9	4.1	1.6	0.5	6.4	4.5	4.4	2.5	5.6
508	Machinery	5.2	4.5	5.6	4.5	1.8	0.6	4.7	5.1	5.5	2.3	4.9
509	Other Durable	4.4	6.5	4.3	6.4	1.6	0.9	2.9	6.0	4.1	3.5	2.3
51	Nondurable	1.9	1.9	1.7	1.8	0.6	0.4	1.4	1.2	1.8	1.3	1.3
511	Paper	3.2	3.7	3.4	3.9	1.0	0.4	2.9	4.0	3.1	3.6	2.7
512	Drugs	5.5	5.1	5.4	5.1	0.5	0.4	3.2	2.2	5.5	5.0	3.3
513	Apparel	4.7	7.5	5.0	7.8	2.3	0.8	4.9	5.4	4.5	2.8	3.5
514	Groceries	3.2	4.7	3.1	4.7	0.8	0.7	2.1	5.0	3.0	2.7	1.9
515	Farm-products	5.0	6.6	4.9	6.7	2.0	1.4	3.2	3.6	4.6	3.7	2.2
516	Chemicals	5.4	5.7	5.5	5.5	1.5	0.5	4.4	4.3	5.6	2.8	3.9
517	Petroleum	5.2	14.0	5.1	14.0	1.0	1.0	3.1	14.2	5.5	4.2	3.3
518	Alcohol	6.4	5.8	6.4	6.1	1.5	1.2	8.0	6.0	6.4	5.1	8.3
519	Other Nondur.	6.0	5.7	5.9	5.7	2.5	1.3	6.8	5.4	5.4	1.9	6.2

Note: The median measures of variability are based on the most recent 7 months of data.

## Sample Design and Reliability of Data

There are two types of errors possible in an estimate based on a sample survey: sampling and nonsampling.

Sampling errors occur because observations are made on a sample, not on the entire population, and different samples could have led to different estimates. Standard errors and coefficients of variation, as calculated for this report, are measures of sampling variation. The margin of sampling error, as used on page 1, gives a range about the estimate which is a 90% confidence interval. If, for example, the trend estimate is up 1.2% and the standard error is 0.9%, then the margin of sampling error is  $\pm 1.65 \times 0.9\%$  or  $\pm 1.5\%$ , and the 90% confidence interval is -0.3% to  $\pm 2.7\%$ . If the interval contains 0, it cannot be stated with certainty whether there was an increase or decrease. For monthly level, the coefficient of variation (CV) is given. The resulting confidence interval is the estimated value  $\pm 1.65 \times CV \times (the estimated value)$ .

Nonsampling errors are usually attributed to many possible sources: (1) coverage error - failure to accurately represent all population units in the sample, (2) inability to obtain

information about all sample cases, (3) response errors, possibly due to definitional difficulties or misreporting, (4) mistakes in recording or coding the data obtained, and (5) other errors of collection or processing, or in imputing for missing or inconsistent data. Coverage error has an effect on the accuracy of estimates for this survey to the extent that the administrative records system, which forms the basis of our survey universe frame, does not contain all legal businesses. A major source of nonsampling error in the published estimates is due to the need to impute data for nonrespondents and for late and inconsistent reports. For all kinds of businesses combined, imputed data amount to about 26 percent of the total monthly wholesale sales estimates and 28 percent of the total monthly wholesale inventories estimates.

Nonsampling errors also occur in complete censuses. Although no direct measures of these errors have been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data to minimize their influence.

U.S. Department of Commerce BUREAU OF THE CENSUS Washington, D.C. 20233 FIRST-CLASS MAIL
POSTAGE & FEES PAID
CENSUS
PERMIT No. G-58

Official Business Penalty for Private Use, \$300

Table 3. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers

SIC				Sa	les		Inventories							
code	Kind of business			1997			1996	1996						
		Jul.	Jun.	Mayr	Apr.	Mar.	Jun.r	Jul.	Jun.	Mayr	Apr.	Mar.	Jun.r	
	U.S. Total¹	1.001	1.009	1.016	1.007	1.012	0.986	0.995	0.986	0.996	1.009	1.004	0.986	
50	Durable	0.997	1.018	1.000	1.002	1.023	0.994	1.013	0.999	1.007	1.009	0.999	0.998	
501	Automotive	1.035	1.016	1.039	1.049	1.060	1.003	0.994	0.989	1.016	1.020	1.012	0.986	
	Furniture	0.989	0.995	1.010	1.007	0.993	0.973	1.019	1.019	1.007	0.981	0.998	1.018	
	Lumber	1.070	1.065	1.056	1.026	0.963	1.041	0.995	1.021	1.021	1.026	1.045	1.020	
	Prof. equip.	0.982	1.013	0.961	0.956	1.042	0.990	1.025	0.986	0.987	1.006	0.999	0.986	
	Metals	0.983	1.022	1.031	1.054	1.027	1.002	1.013	1.003	1.000	1.007	1.009	1.005	
	Electrical	0.999	0.999	0.969	0.963	1.016	0.978	1.028	1.013	0.999	0.994	0.976	1.013	
	Hardw are	1.075	1.063	0.996	0.989	0.932	1.040	1.002	0.998	1.019	1.010	1.010	0.997	
	Machinery Other Durable	0.991 0.922	1.026	1.035 0.962	1.040 0.937	1.058 0.985	0.988	1.010 1.043	0.999	1.013	1.017	1.008 0.961	1.000 1.001	
												1		
51	Nondurable	1.008	0.998	1.029	1.013	1.004	0.974	0.964	0.964	0.974	1.012	1.016	0.964	
	Paper	1.021	0.979	0.969	0.992	0.990	0.958	1.004	0.984	0.989	1.017	1.004	0.984	
	Drugs	0.995	0.967	0.967	1.019	0.980	0.921	0.989	0.968	0.947	1.000	0.997	0.967	
	Apparel	1.036	0.977	0.844	0.945	1.047	0.969	1.030	1.015	0.971	0.963	0.970	1.016	
	Groceries	1.023	0.992	1.040	0.985	1.007	0.980	0.992	0.991	0.985	0.985	0.981	0.991	
	Farm-products	0.948	0.923	1.003	1.001	1.033	0.889	0.757	0.793	0.876	1.023	1.116	0.792	
	Chemicals	1.001	1.051	1.063	1.050	1.018	1.018	0.986	1.015	1.008	1.014	1.020	1.015	
	Petroleum Alcohol	0.987	0.980	1.025	1.006	0.977	0.944	1.005	0.967	1.006	0.976	0.963	0.969	
	Other Nondur.	1.077	1.069	1.081	0.997	0.918	1.035	1.021	0.994	0.982	1.004	0.979	0.992	
519	Cilier Nollaur.	1.023	1.077	1.138	1.101	1.038	1.048	0.959	0.975	1.022	1.072	1.052	0.974	



## r Revised

1 Adjusted sales and inventories data shown in table 1 are obtained by dividing the unadjusted data by the adjustment factors shown above for the corresponding group. Adjusted data for the totals are obtained by adding the durable and nondurable goods. Seasonal factors shown for the totals will provide an approximation of the adjusted estimates, but may show small differences from the published data.

Note: The seasonal factors shown have been computed based on monthly estimates through the current month preliminary estimates.